

FLAGLER COUNTY FLORIDA

Hurricane and Storm Damage Reduction Study

Public Workshop
February 5, 2014

Presented by
U.S. Army Corps of Engineers
Jacksonville District



The background of the slide features a coastal scene. On the left, a road runs parallel to a sandy beach. A diamond-shaped sign is visible on the road. The ocean waves are visible in the foreground and background. The sky is overcast.

PRESENTATION OUTLINE

- Background
- Problems and Opportunities
- Objectives
- Future Without Project Conditions
- Plan Formulation
- ★ Tentatively Selected Plan (TSP)
 - Engineering Aspects
 - Cost Aspects
 - Environmental Aspects
- Schedule & Next Steps

STUDY BACKGROUND

2002

Study
Authorized
(House Resolution 2676)

2004

Reconnaissance
Report

Feasibility
Cost-Sharing
Agreement

2008

Feasibility
Study
Initiated

2011

Feasibility
Scoping
Meeting

2014

Draft
Feasibility
Study and
Environmental
Assessment



PROBLEMS AND OPPORTUNITIES

Problems:

- Erosion, storm surge (inundation), and wave attack
- Damage to coastal structures and infrastructure including A1A evacuation route
- Loss of natural beach habitat
- Threatened recreational and tourism opportunities

Opportunities:

- Reduce storm damage to coastal structures and infrastructure
- Restore dunes to function naturally
- Protect natural habitat
- Protect the current hurricane evacuation route capability
- Maintain recreation and tourism opportunities



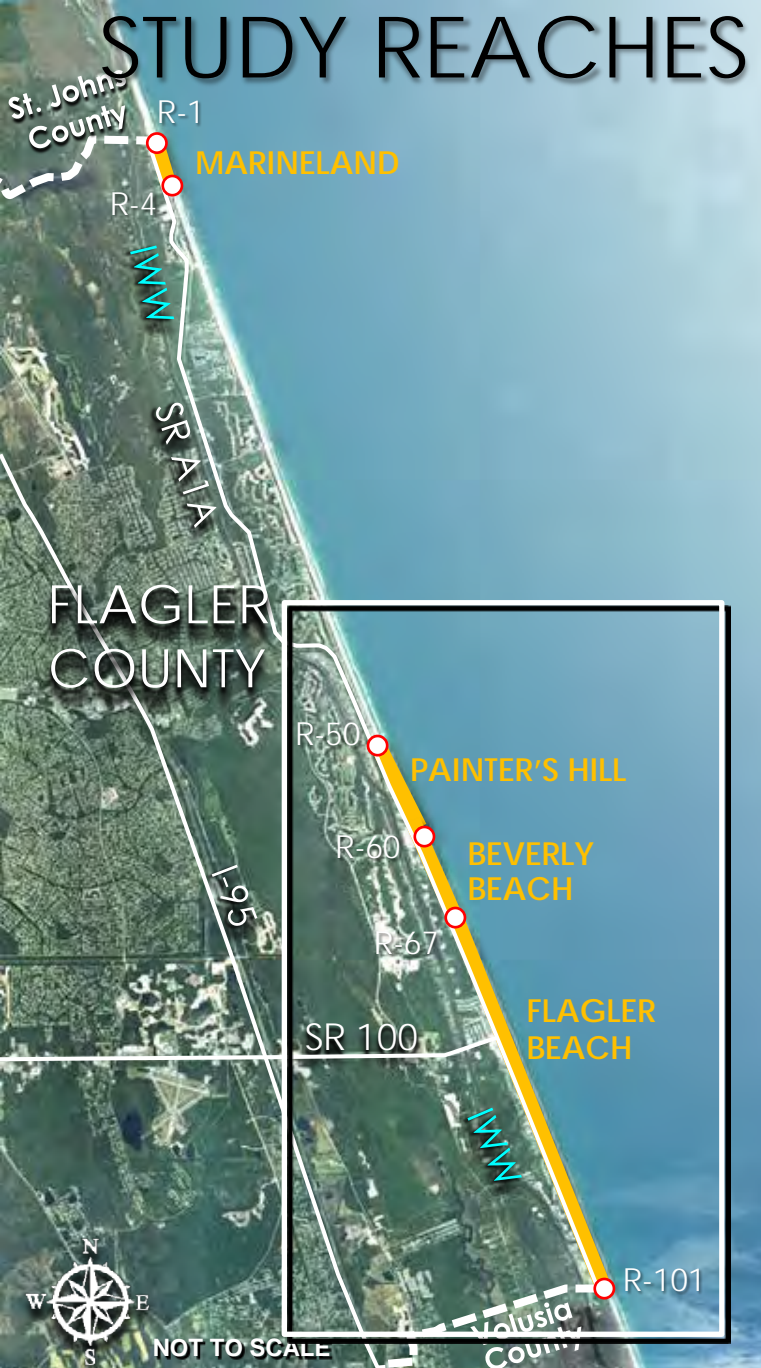
STUDY OBJECTIVES



1. Reduce storm damages to structures and infrastructure
2. Maintain environmental quality
3. Maintain recreational opportunities
4. Maintain a safe hurricane evacuation route



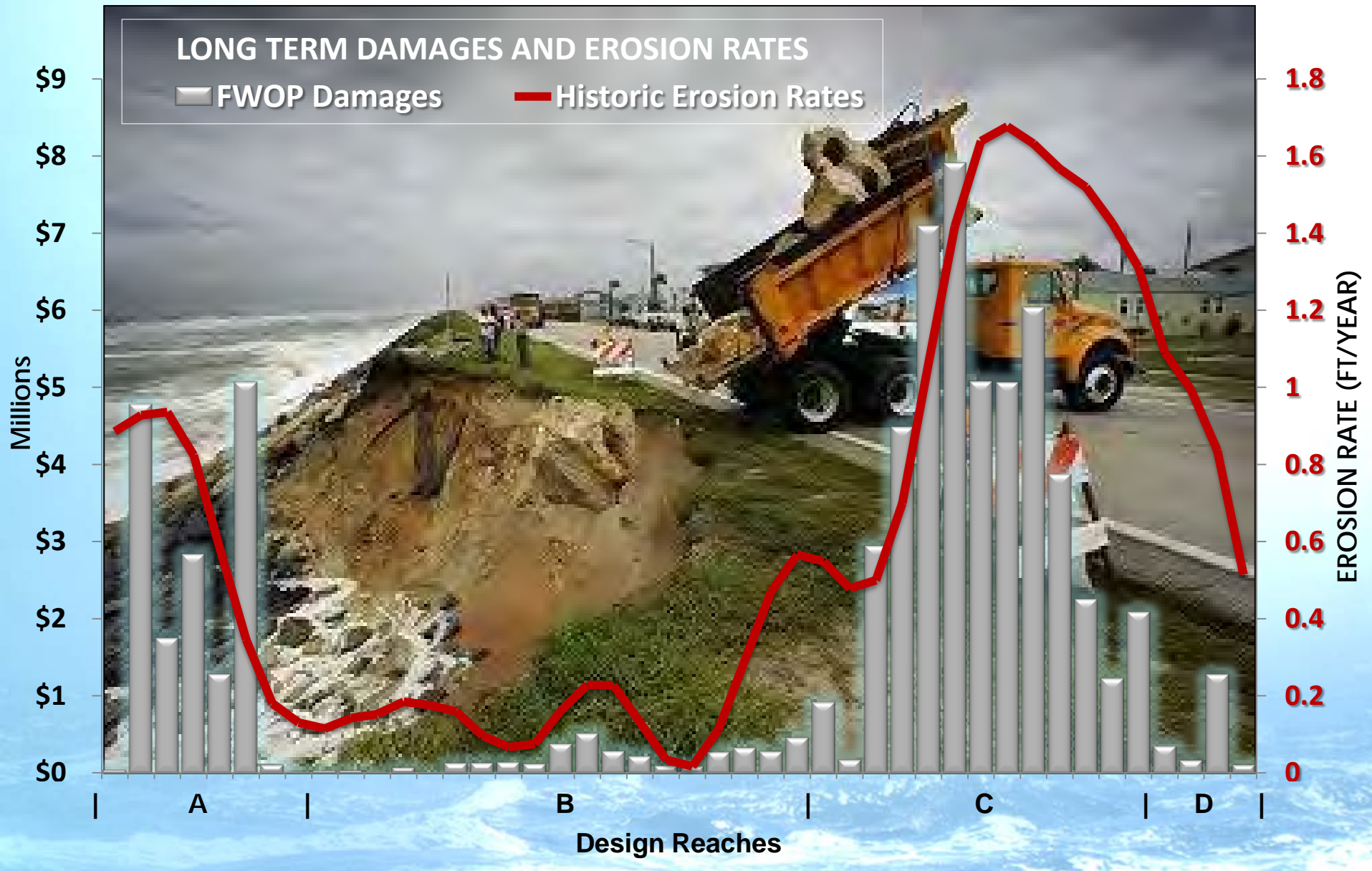
STUDY REACHES



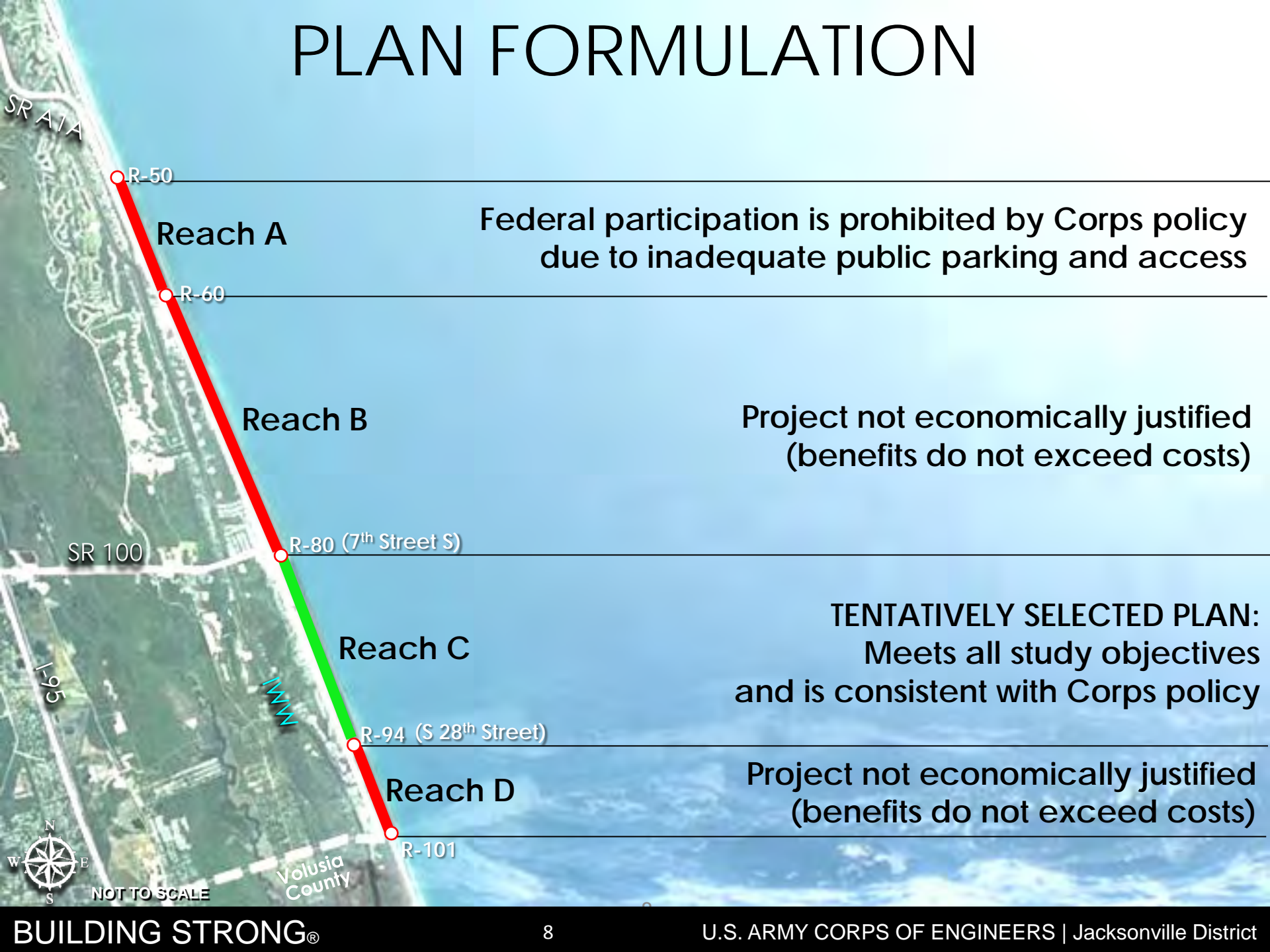
DESIGN REACHES



FUTURE WITHOUT PROJECT (FWOP) CONDITION



PLAN FORMULATION



R-50

Reach A

Federal participation is prohibited by Corps policy due to inadequate public parking and access

R-60

Reach B

Project not economically justified (benefits do not exceed costs)

SR 100

R-80 (7th Street S)

Reach C

TENTATIVELY SELECTED PLAN:
Meets all study objectives and is consistent with Corps policy

R-94 (S 28th Street)

Reach D

Project not economically justified (benefits do not exceed costs)

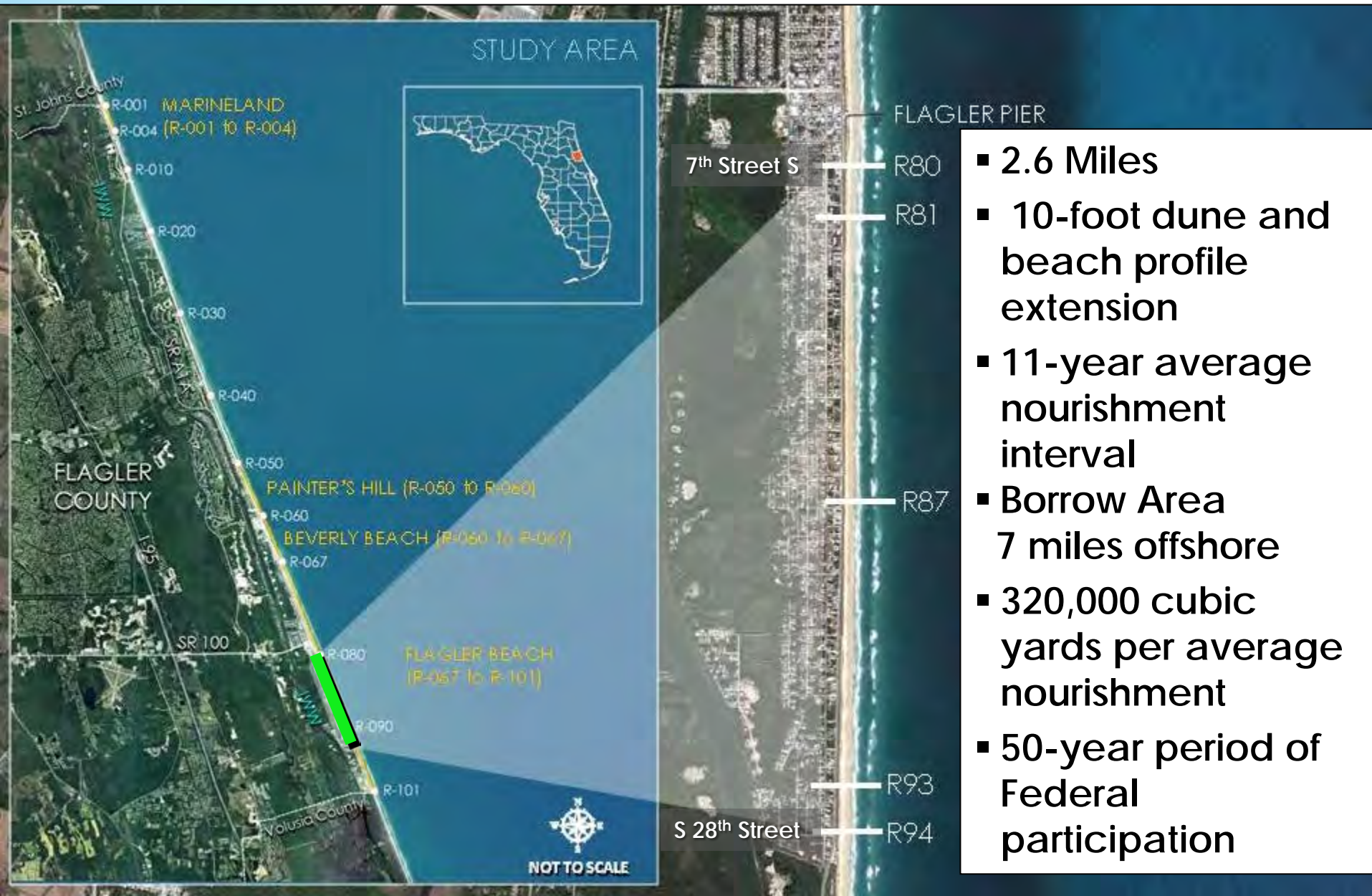
R-101

Volusia County



NOT TO SCALE

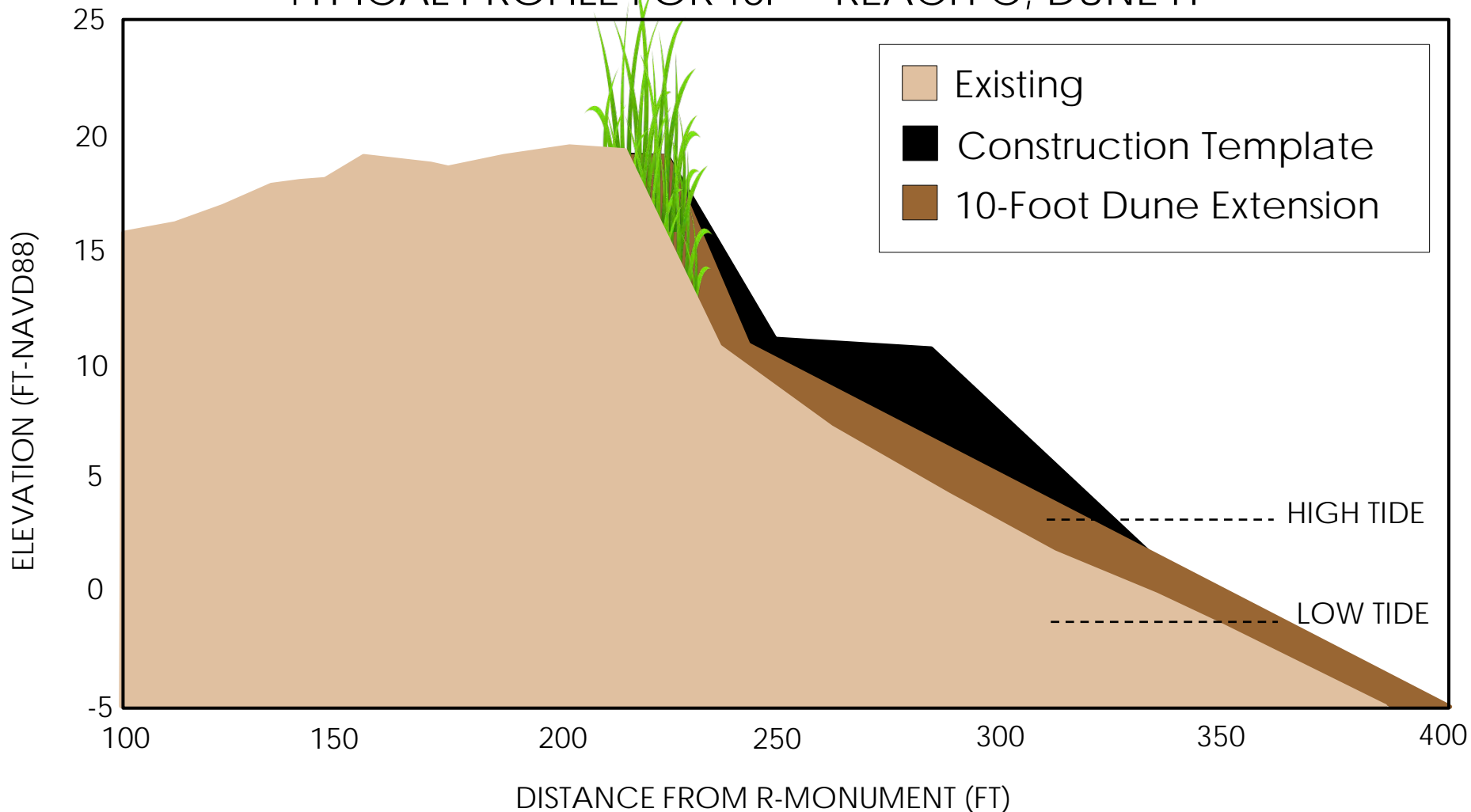
TENTATIVELY SELECTED PLAN (TSP)



ENGINEERING ASPECTS

10-foot seaward extension of the dune and beach profile in Reach C

TYPICAL PROFILE FOR TSP – REACH C, DUNE H



TENTATIVELY SELECTED PLAN (TSP) CONCEPTUAL RENDERING

Restored dunes
and equilibrated
beach profile



COST ASPECTS

- Initial Construction: \$14,127,000

Federal Cost (65%)	Non-Federal Cost (35%)
\$9,182,550	\$4,944,450

- Periodic Nourishments (4 events): \$7,357,000

Federal Cost (50%)	Non-Federal Cost (50%)
\$3,678,500	\$3,678,500

- Total Project Cost: \$43,465,000 over 50 years

ENVIRONMENTAL ASPECTS

- Dune extension will be vegetated with native plants to stabilize the dune and promote wildlife usage
 - Nesting habitat
 - Food source
 - Biodiversity
- Hardbottom resources are outside of borrow and sand placement areas– no impacts to occur
- No effect to cultural resources

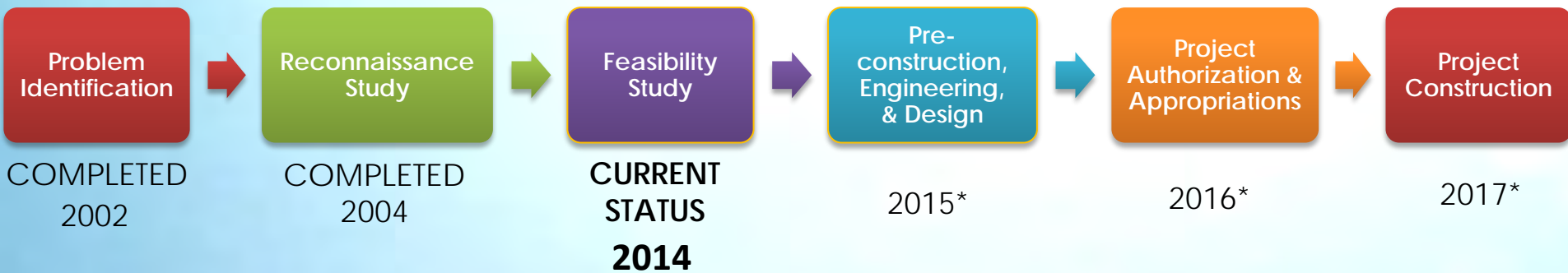


TSP SUMMARY

The Tentatively Selected Plan (TSP) meets the objective to reduce damages caused by coastal erosion, is environmentally acceptable, and has been formulated according to Corps Policy:

- Benefit Cost Ratio: 1.83
- Maximizes net benefits for storm damage reduction
- Maintains environmental quality and is environmentally favorable compared to the FWOP condition
- Maintains recreational opportunities
- Maintains evacuation route

SCHEDULE AND NEXT STEPS



* Subject to Future Federal Funding

HOW TO PROVIDE COMMENTS

Mail to:

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701 San Marco Boulevard, Jacksonville, FL 32207

E-mail to:

Flagler.HSDRComments@usace.army.mil

Comment cards may be turned in tonight

Public comment period ends on February 18, 2014

POSTERS STATIONS

- Study Overview
- Environmental
- Economics
- Engineering
- Beach Basics



THANK YOU



2 Minute Timer

End